

Supporting document for LaTiO₂N crystallographic orientation control significantly increases visible charge extraction

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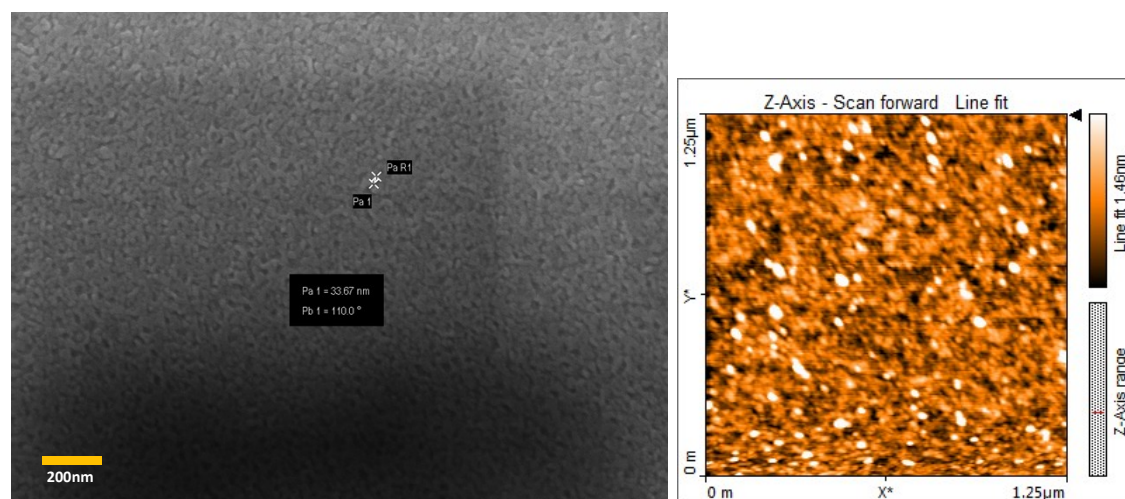


Figure S1. (left) SEM image of our LTON (011) film. Small domains are visible ~20-30nm in diameter. (right) AFM image of our LTON (001) film. Both images are scaled to approximately fit the 200nm scale bar.

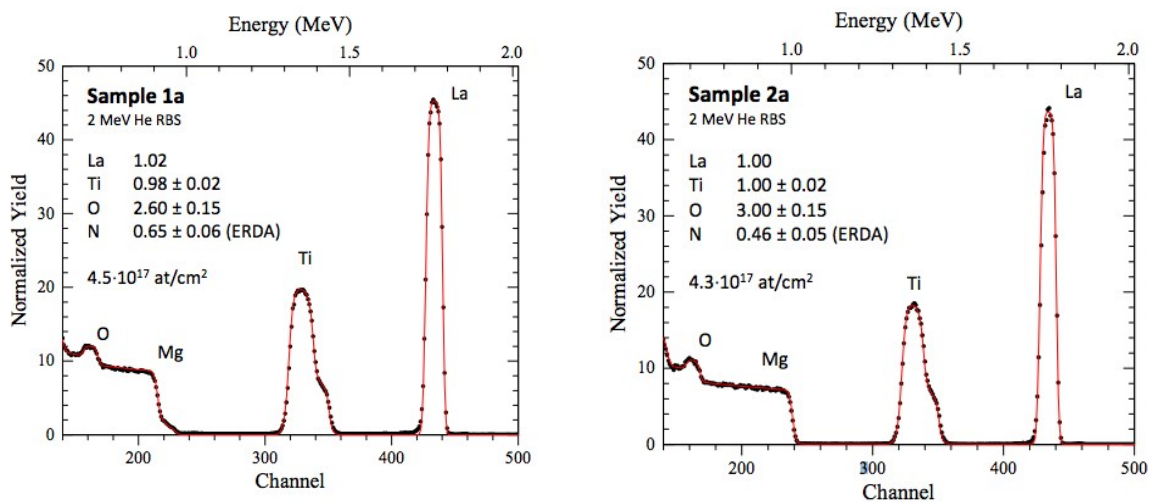


Figure S2. RBS spectra of elemental compositions of (left) LTON (011) and (right) LTON (001). Nitrogen and oxygen ratio were determined by ERDA.

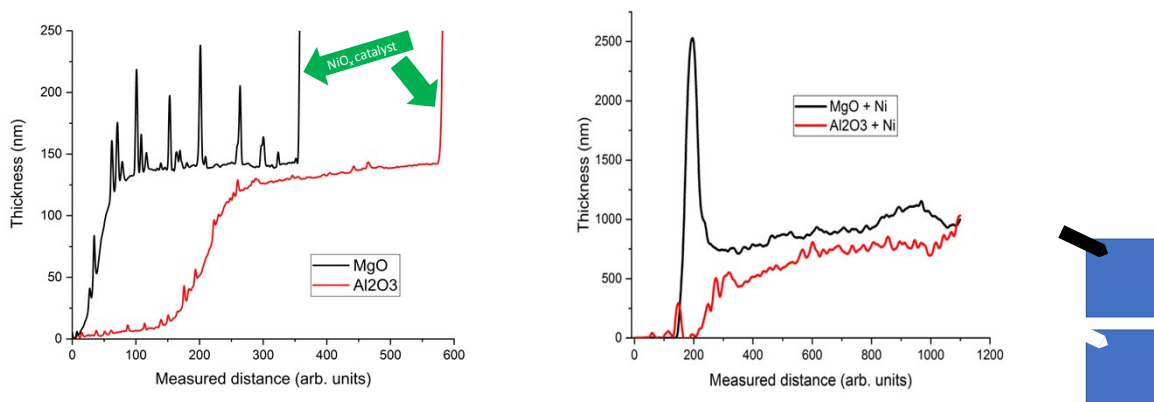


Figure S3. Profilometer measurements of film deposition thickness. (left) thickness of LTON films. Scans were produced from a masked location to un-masked location. The difference in thickness gradient is due to a shadowing effect of our stencil mask. (center) thickness measurements of the NiO_x catalyst. (right) Diagram of our thin film before and after an applied mask.

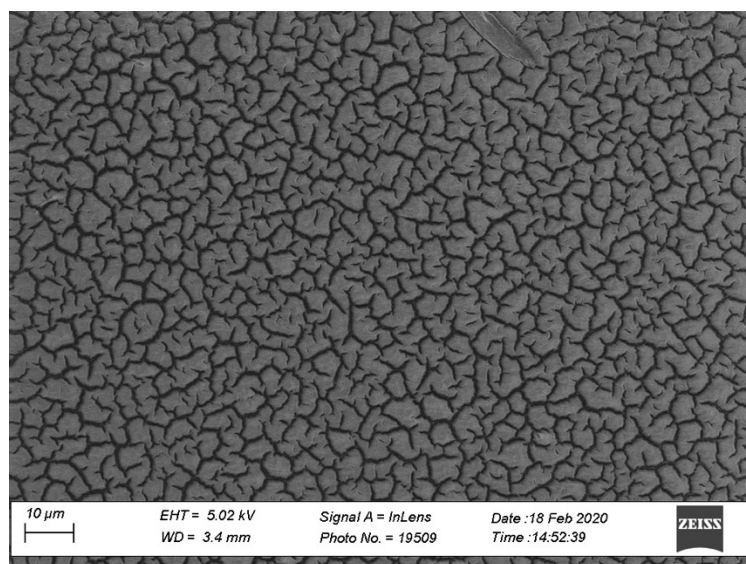


Figure S4. SEM image of the Nickel catalyst layer on top of LTON (011).

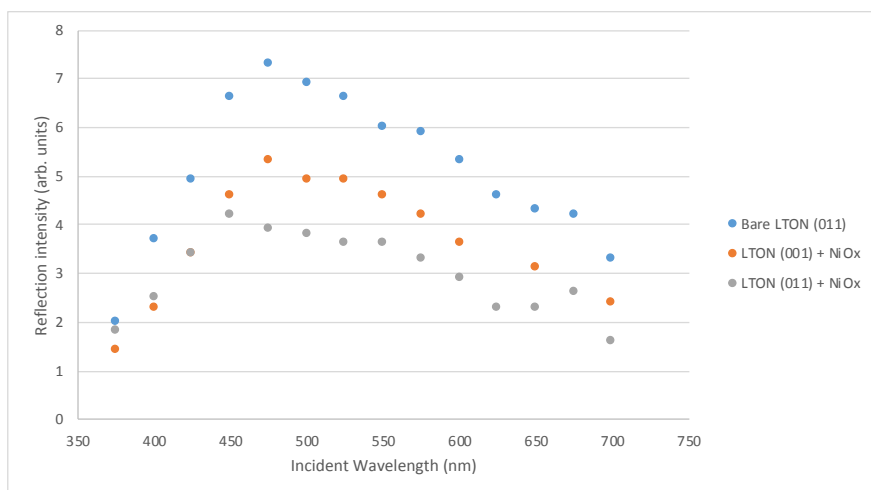


Figure S5. Reflectivity measurements of Bare LTON (blue) vs catalyst decorated thin films (orange and grey).